

FS Grappling Hook System

First, thank you for purchasing our **Grappling Hook System** asset!

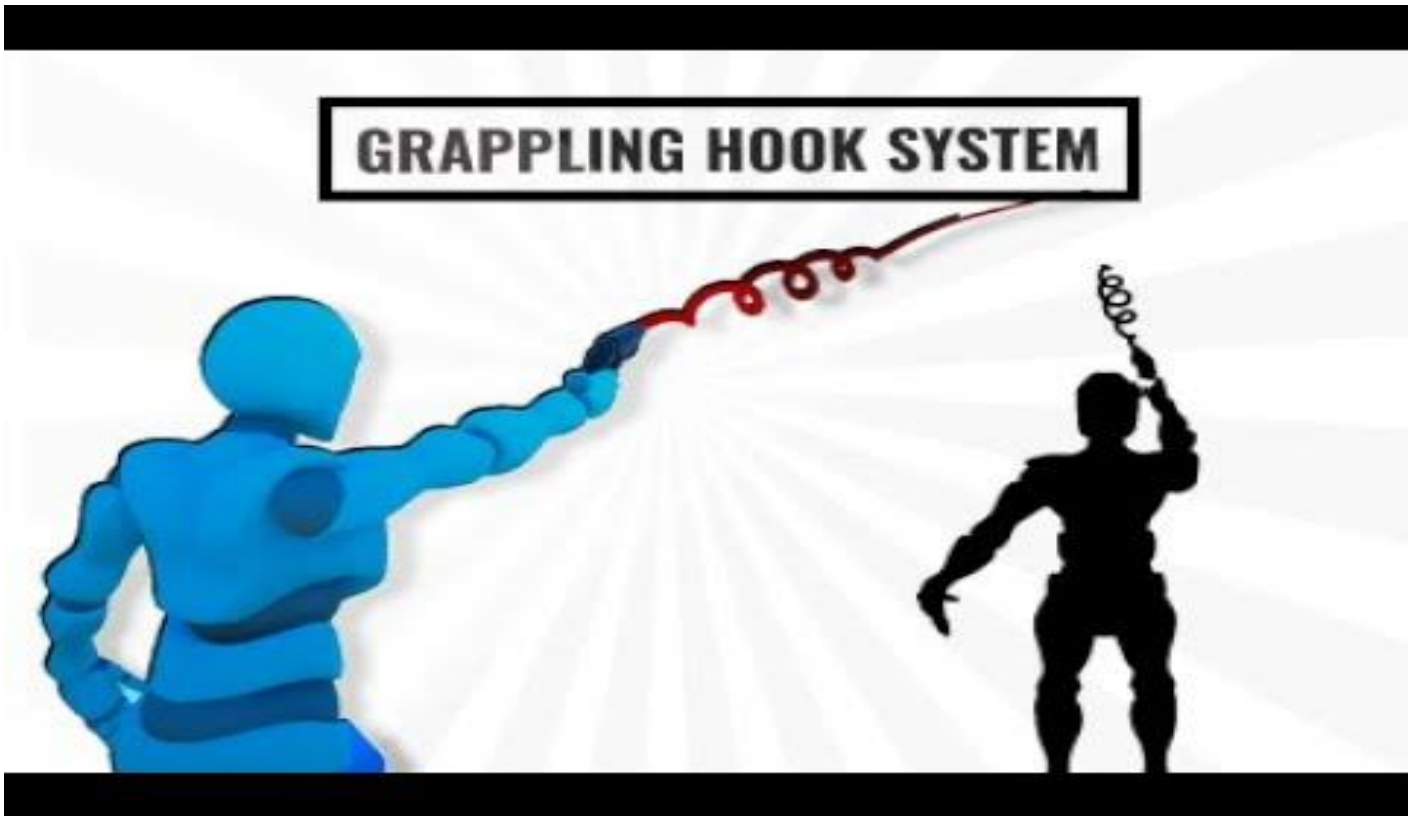
Enhance your gameplay with an immersive grappling hook mechanic inspired by the Batman Arkham series! This system lets players traverse levels with ease, launching a hook to pull themselves or swing dynamically between points.

Key Features:

- Automatically pull or swing to the target based on its height, giving players flexible movement options for various situations.
- Use the grappling hook to stealthily sneak up behind enemies, adding a unique dimension of stealth gameplay.
- Fully customizable rope with procedural animation for smooth and dynamic movements.
- Seamless integration with FS Parkour and Climbing System, enabling players to use the grappling hook mid-air.
- Easily expand the system with built-in events, allowing for quick customization like playing sound or visual effects during hook and swing actions.

Effortlessly traverse large environments and elevate your game's mobility, stealth, and dynamic movement options with this versatile grappling hook system!

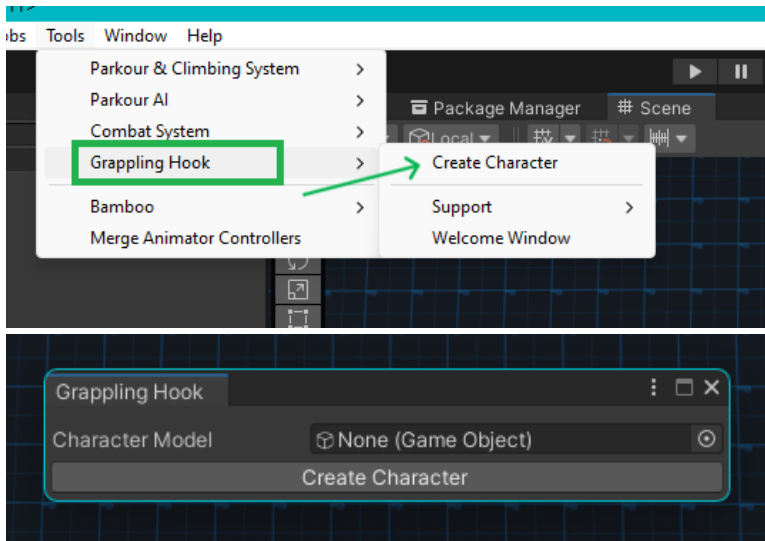
Quick Start



Create Character

To access the "Create Character" window, follow these steps:

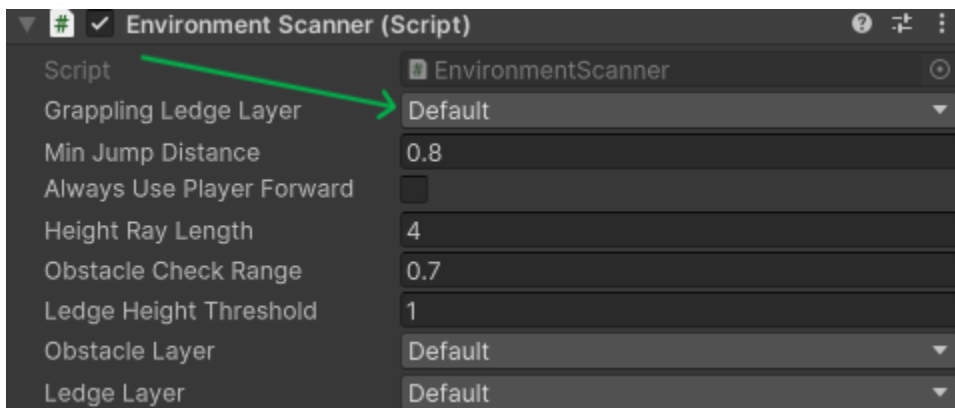
1. Navigate to the Tools menu.
2. Select the Grappling Hook submenu.
3. Click on the Create Character menu item.



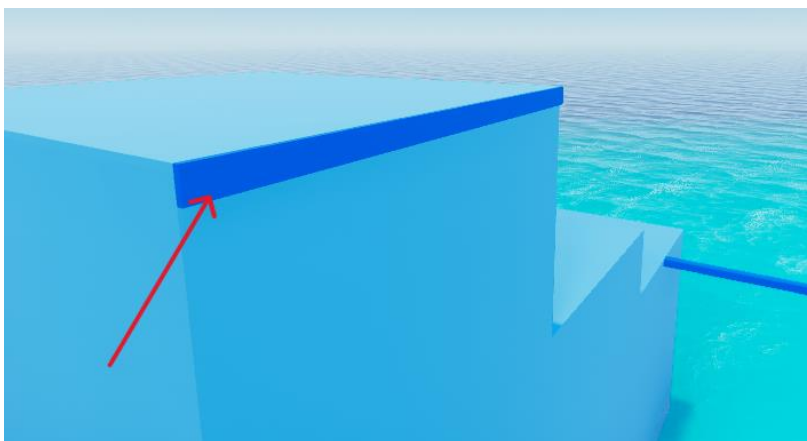
Next, you should assign the model to the "Character Model" field then click the "Create Character" button

Configure Grappable Ledges

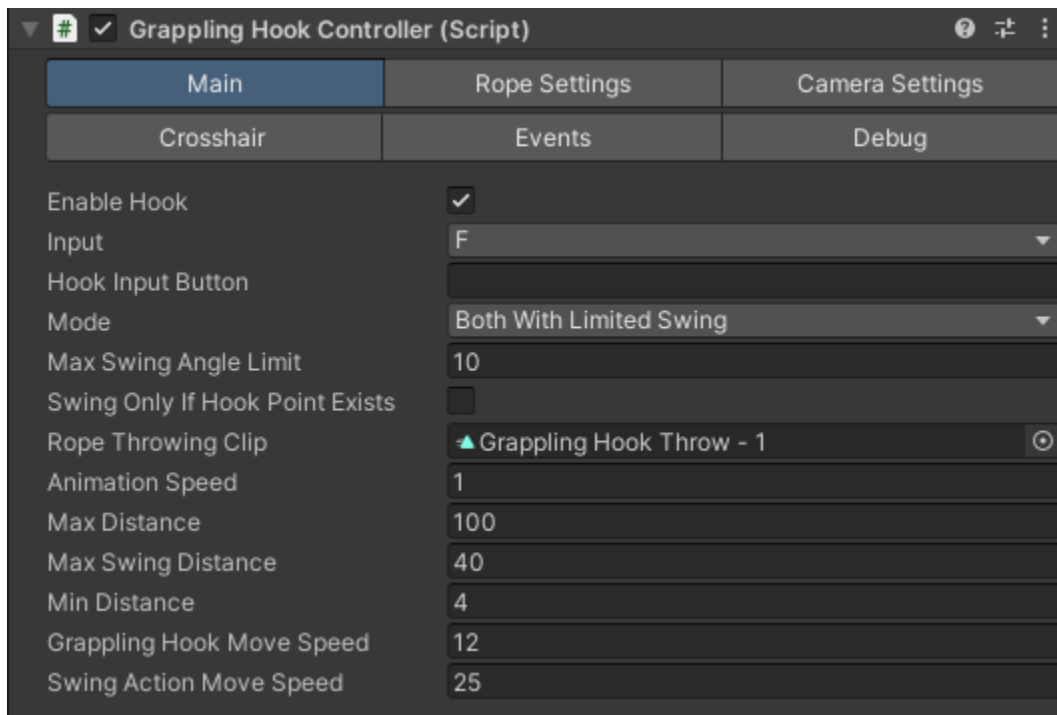
In the **EnvironmentScanner** script, set the Grappling Ledge layer by assigning your desired layers. The default layer of the grappling ledge layer is "**Default**." This allows the player to grapple with any valid point.



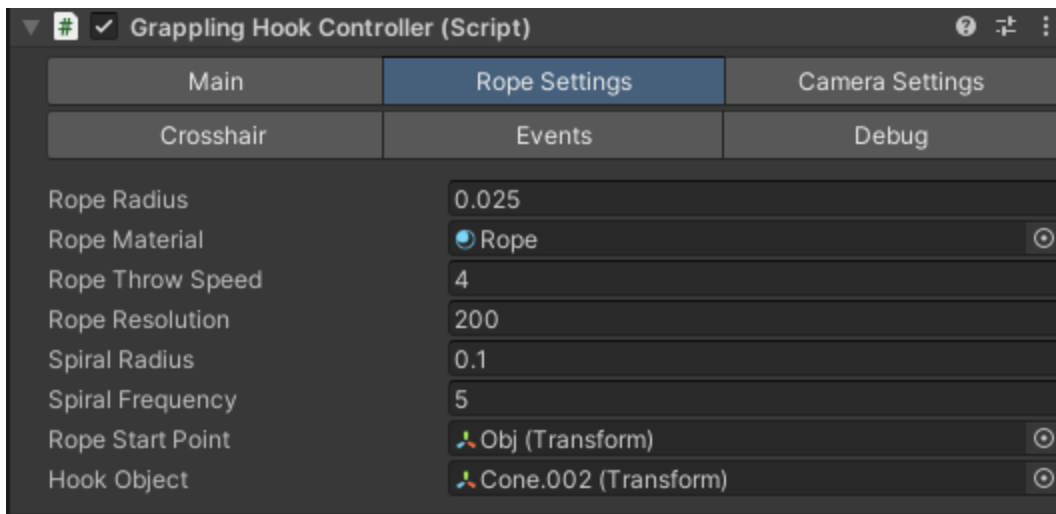
If you want to limit the grapple to specific ledges, create a separate layer for those ledges and assign it to the **EnvironmentScanner** script.



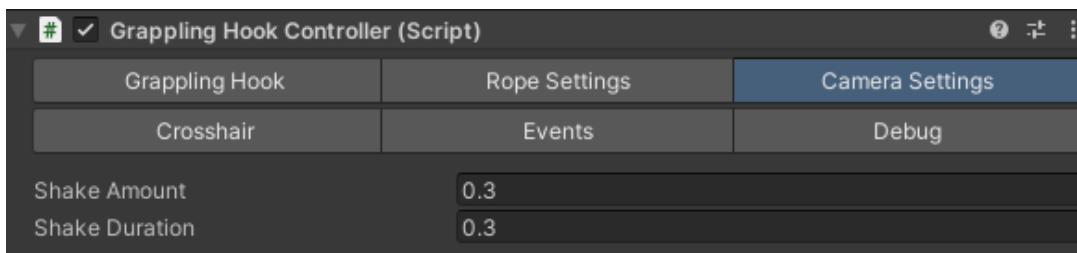
GrapplingHook Controller



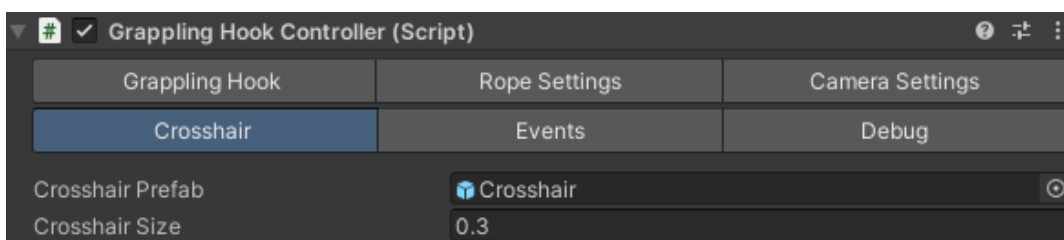
- **enableHook:** Enables or disables the grappling hook functionality.
- **hookInput:** Defines the keyboard key for initiating the hook.
- **hookInputButton:** Identifies the input button name for hooking, helpful for controllers.
- **mode:** Sets the grappling mode, allowing swinging, hooking, or both.
- **maxSwingAngleLimit:** Limits the maximum angle allowed for swinging.
- **swingOnlyIfHookPointExists:** Enables swinging only if a hookable point is found between start and end.
- **ropeThrowingClip:** The animation clip used when the rope is being thrown for the hook.
- **animationSpeed:** Controls the speed of the rope-throwing animation.
- **maxDistance:** The maximum distance the grappling hook can reach to attach to a point.
- **maxSwingDistance:** Sets the maximum range allowed for swinging.
- **minDistance:** The minimum distance the player must be from the grappling point for the hook to function properly.
- **grapplingHookMoveSpeed:** The movement speed when using the grappling hook.
- **swingActionMoveSpeed:** The movement speed during the swing.



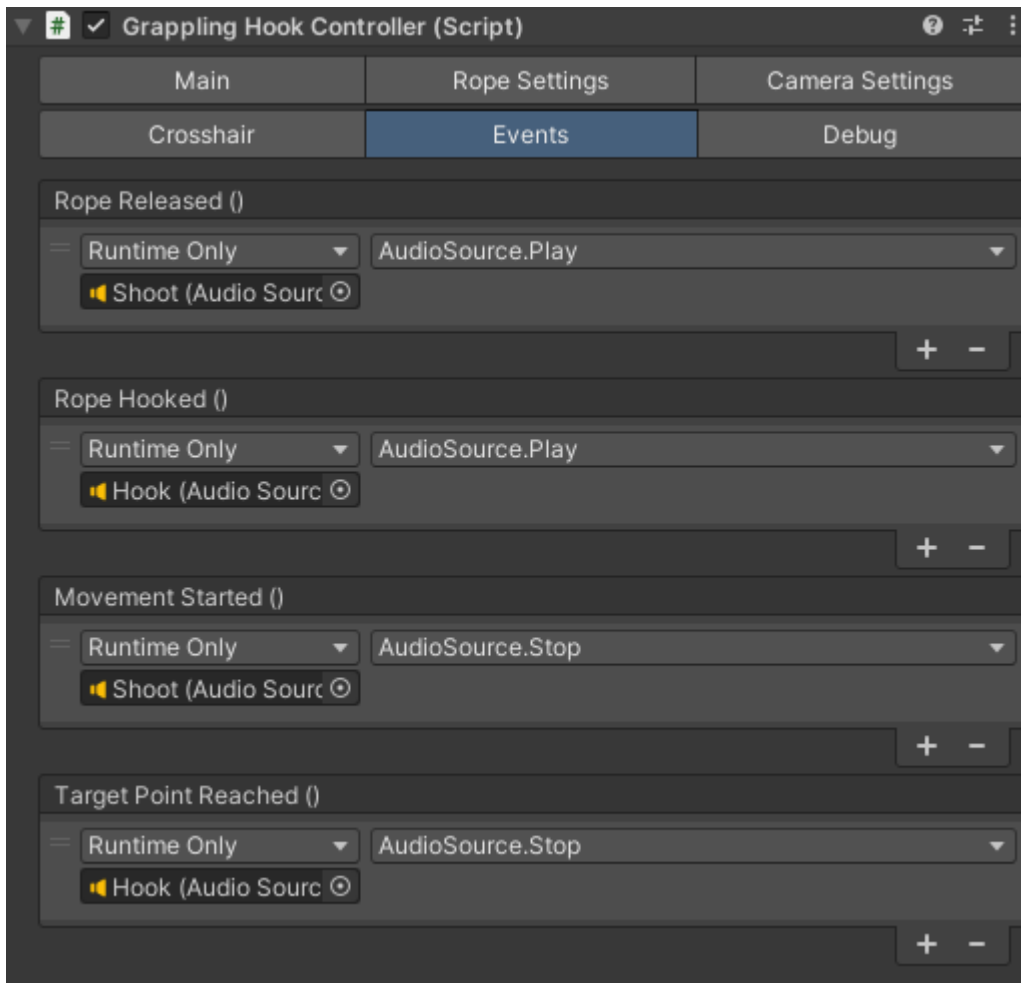
- **RopeRadius:** Specifies the thickness of the rope used for the grappling hook.
- **RopeMaterial:** The material applied to the rope for visual appearance.
- **RopeThrowSpeed:** The speed at which the rope is thrown towards the target point.
- **RopeResolution:** Determines the number of segments used to render the rope, affecting its smoothness.
- **SpiralRadius:** The radius of the spiral motion when the rope is thrown.
- **SpiralFrequency:** Controls the frequency of the spiral effect in the rope's motion.
- **RopeStartPoint:** The starting point of the rope. If not set, the right hand will be used as the default
- **HookObject:** This Transform represents the physical hook part of the grappling gun, typically the part that travels towards the target point when the grappling hook is fired



- **CameraShakeAmount:** The intensity of the camera shakes when the hook is pulled.
- **CameraShakeDuration:** The duration of the camera shakes when the hook is pulled.



- **CrosshairPrefab:** The crosshair to display when aiming the grappling hook.
- **CrosshairSize:** The size of the crosshair.



- **RopeReleased:** An event triggered when the hook is released.
- **RopeHooked:** An event triggered when the hook successfully attaches to a target point.
- **MovementStarted:** An event triggered when the player starts moving towards the point.
- **TargetPointReached:** An event triggered when the player reaches the point.